

Applicant respectfully requests reconsideration of the above-identified patent application as amended and in view of the following remarks.

General Remarks

Applicant has previously responded to a request similar to that of paragraph 3 of the Office Action in its response filed January 18, 1999. The status of the related applications and patents has not changed since then.

§102 Rejection of the Claims

Claims 22-32 were rejected under 35 USC § 102(b) as being anticipated by Manning (U.S. Patent No. 5,610,864). Applicant traverses the rejection, and submits that the Manning reference does not disclose each and every element of the claims. As such, the claims are believed allowable.

The Office Action relies on Manning at Figure 1, ref. 40, col. 6, lines 14-26 and col. 5, lines 43-50 for its rejection of claim 22. Manning does briefly discuss switching between burst EDO and standard EDO modes of operation. However, only a general discussion is present. In Manning, at col. 6, lines 16-22, an initial choice of whether the mode of operation of Manning will be burst EDO or standard EDO is made. The only substantive discussion of any switching occurs at col. 6, lines 30-34: “[I]n a device designed with an alternate method of switching between burst and non-burst access cycles, the state of /WE when /RAS falls may be used to switch between other possible modes of operation such as interleaved versus linear addressing modes.”

Reference 40 of Figure 1 is a “mode register which latches the state of one or more of the address input signals ...” Further, “[o]utputs 44 from the mode register control the required circuits on the DRAM.” No mention is made in Manning of “switching the memory circuit between a burst mode and a pipelined mode” as is required by claim 22, especially not with the mode register 40 of Manning. Applicant is unable to find any reference in Manning of any circuitry operable in either a burst or pipeline mode. The only support for a pipeline mode in Manning is not for a pipeline mode, but instead for a pipeline architecture. This mention of a pipeline architecture does not teach operation of the Manning memory device in either a pipeline

or burst mode, and certainly does not teach switching between a burst mode and a pipeline mode of operation.

Manning further does not teach any circuitry for switching between pipeline and burst modes of operation, as is required by claim 1. The mode register 40 of Manning is asserted by the Office Action to be a “multiplexer (Fig. 1 Ref. 40) for switching the memory circuit between a burst (col. 6 lines 14-26 and col. 7 lines 43-54) and a pipelined mode of operation (col. 5 lines 43-50).” Manning is utterly lacking in any support for that assertion.

Control 38 of Manning receives, as is clearly shown in Figure 1, /WE, /RAS, and /CAS signals. To assert that a mode select signal is also shown is unsupported by Manning. The mode select signal 142 of claim 22 is discussed in the specification at page 28, line 13 to page 30, line 3. No such mode select signal is shown or discussed in Manning.

Claim 24 requires mode select circuitry not shown in Manning. Figure 11 of the present application shows mode circuitry 138. This mode circuitry is configured to select between a burst mode and a pipeline mode of operation as is recited in the claims. No such mode circuitry exists in Manning. See page 27, line 22 to page 29, line 3 for a discussion of the mode circuitry.

As claims 23-32 depend from and further define patentably distinct claim 22, such claims are also believed allowable.

New claims 59-65 have been added. These claims are also believed allowable over the art of record, and consideration and allowance of the new claims is respectfully requested.

AMENDMENT AND RESPONSE

Serial Number: 08/984,562

Filing Date: December 3, 1997

Title: MEMORY DEVICE FOR BURST OR PIPELINED OPERATION WITH MODE SELECTION CIRCUITRY

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CONCLUSION

Applicant believes the claims are in condition for allowance and requests reconsideration of the application and allowance of the claims. The Examiner is invited to telephone the below-signed attorney at (612) 373-6944 to discuss any questions which may remain with respect to the present application.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Assistant Commissioner of Patents, Washington, D.C. 20231 on September 7, 1999.

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